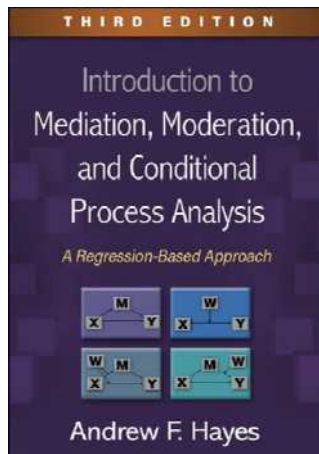


## PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling

This paper has not been available from [afhayes.com/public/process2012.pdf](http://afhayes.com/public/process2012.pdf) for almost a decade. It is no longer available because it is long ago outdated and should never be cited as support for the use of PROCESS. The proper citation for PROCESS is



Hayes, A.F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd Edition). New York: The Guilford Press.

Of course, don't cite this if you haven't read it. If you haven't read it, you probably shouldn't be using PROCESS, as it may not be doing what you think it is doing. If you'd rather not read the documentation or the book but would like to learn about PROCESS and how it works, consider taking a class from Andrew F. Hayes through the Canadian Centre for Research Analysis and Methods. For currently scheduled offerings, go to <http://haskayne.ucalgary.ca/CCRAM>



# Rocky Mountain Methodology Academy 2023

July 18 - July 29, 2023

The Canadian Centre for Research Analysis and Methods hosts its Rocky Mountain Methodology Academy in Calgary, Alberta, Canada. Choose from eight courses taught by experts in social science data analysis and research methods. Between sessions and after class, explore Calgary and the Canadian Rockies.



**UNIVERSITY OF CALGARY**  
HASKAYNE SCHOOL OF BUSINESS

## SESSION 1: JULY 18-19, 2023

### Introduction to Structural Equation Modeling

Dr. Doug Baer, PhD (University of Victoria)

This course introduces the fundamentals of Structural Equation Modeling as a general analytical tool, including how to set up measurement and structural models, latent variables, path analysis, definitions and quantification of model fit, and the implementation of Structural Equation Modeling in statistical software.

### Scale Development and Psychometrics

Dr. Jessica Flake, PhD (McGill University)

Researchers need to thoroughly evaluate the validity of scale scores as they are often used to make decisions like how to measure critical outcomes in a research study, develop a product, or admit a student or promote an employee. This course will cover how to develop, evaluate and refine scales using modern psychometric methods.

## SESSION 2: JULY 21-22, 2023

### Multilevel Structural Equation Modeling

Dr. Kristopher Preacher, PhD (Vanderbilt University)

Multilevel Structural Equation Modeling provides an intuitive, flexible framework for combining all the best abilities of multilevel modeling and structural equation modeling into a single modeling approach. Participants will build on their foundational knowledge of either structural equation modeling or multilevel modeling while learning about practical applications of MSEM methods to data in education, psychology, medicine, business, and allied fields

### Introduction to Multilevel Modeling

Dr. Jason Rights, PhD (University of British Columbia)

This course provides an introduction to multilevel modeling, with a focus on its application within the social, education, health, and business sciences. Participants will learn fundamental statistical principles underlying multilevel modeling, a variety of techniques and methods that can be used in many different research contexts and how to appropriately specify models and interpret results in practice.

## SESSION 3: JULY 24-25, 2023

### Latent Profile Analysis

Dr. Matthew McLarnon, PhD (Mount Royal University)

Latent profile analysis is a family of statistical models that can be used to identify unobserved, heterogeneous, and qualitatively distinct subgroups in one's data. This course will provide participants with the theoretical and conceptual background and applied analytical skills needed to specify an appropriate analytical model, interpret the results, and thoroughly address research questions using Latent Profile Analysis.

### Introduction to Mediation, Moderation, and Conditional Process Analysis

Dr. Andrew F. Hayes, PhD (University of Calgary)

Mediation analysis, moderation analysis, and their integration as conditional process analysis are among the most widely-used data analysis techniques in the social sciences. In this course, you will learn about the underlying principles and the practical applications of these methods using ordinary least squares regression analysis and the PROCESS macro for SPSS, SAS and R, invented by the course instructor.

## SESSION 4: JULY 27-28, 2023

### Mediation, Moderation, and Conditional Process Analysis: A Second Course

Dr. Andrew F. Hayes, PhD (University of Calgary)

This is a continuation of the course offered in session 3 and covers more advanced topics including parallel moderated mediation, mediation and moderation with multicategorical variables, serial moderated mediation, creating custom models in the PROCESS macro, and other applications of the fundamentals discussed in the first course.

### Introduction to Social Network Analysis

Dr. Jenny Godley, PhD (University of Calgary)

Social network analysis examines the patterning of relationships between individuals and groups to understand social action. This short course will cover the design, collection, analysis and interpretation of both whole and ego-centred network data.

## Register now! Seats are limited

To register for courses, [visit \*\*haskayne.ucalgary.ca/CCRAM/summer-2023\*\*](https://haskayne.ucalgary.ca/CCRAM/summer-2023).

All courses will take place on the main campus of the University of Calgary. Your registration received by **May 15, 2023**, will include a day trip by chartered bus to the world-famous and beautiful town of Banff in the Canadian Rockies, just a brief drive from Calgary.

### Canadian Centre for Research Analysis and Methods (CCRAM)

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## The more courses you attend the more you save!

Courses are \$849 (CAD) each + 5 per cent GST.  
Enroll in 2 courses: \$1,529 (save 10 per cent).  
Three courses: \$2,159 (save 15 per cent).  
Four courses: \$2,699 (save 20 per cent).

Graduate students are eligible for an additional 10 per cent discount.